

No.

200400241



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Dr. Peter Frank

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR PLANT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED, (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Maxine'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twentieth day of September, in the year two thousand and four.

Attest:

Commissioner

Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 55; the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER Dr. Peter Franck		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME ACS 95009	3. VARIETY NAME Maxine
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) ACS-PZO Pflanzenzucht Oberlimpurg Oberlimpurg 2 D-74523 Schwäbisch Hall Germany		5. TELEPHONE (include area code) ++49-791-93480	FOR OFFICIAL USE ONLY PVPO NUMBER 200400241
		6. FAX (include area code) ++49-791-43333	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)	8. IF INCORPORATED, GIVE STATE OF INCORPORATION	9. DATE OF INCORPORATION	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) SEED-LINK INC. P.O. BOX 217 208 St. David Street Lindsay, Ontario K9V 5Z4 Canada		FILING AND EXAMINATION FEES: \$ 3657.00 DATE 6/14/2004 CERTIFICATION FEE: \$ 432.00 DATE 9/02/2004	
11. TELEPHONE (include area code) (705) 324-0544	12. FAX (include area code) (705) 324-2550	13. E-MAIL Franck@PZO-Oberlimpurg.de / sloffice@seed-link.c	
14. CROP KIND (Common Name) winter wheat	16. FAMILY NAME (Botanical) POACEAE	18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLAS COMMERCIALIZATION.	
15. GENUS AND SPECIES NAME OF CROP Triticum aestivum	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A C OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input checked="" type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input type="checkbox"/> NO (If "no", go to item 22)	
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CER	
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.		24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? CANADA Nov. 3, 2001 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGN REFERENCE NUMBER. (Please use space indicated on reverse.)	
SIGNATURE OF OWNER A. Reene		SIGNATURE OF OWNER A. Reene	
NAME (Please print or type) Dr. Peter Franck		NAME (Please print or type) Dr. Peter Franck	
CAPACITY OR TITLE Breeder	DATE May 2, 2004	CAPACITY OR TITLE Breeder	DATE May 2, 2004

(See reverse for instructions and information collection burden statement)

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be received in the PVPO: (1) Complete application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the seed it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,600 (filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvpindex.htm>

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been used by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branding, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 <http://www.ams.usda.gov/lsg/seed.htm>.

ITEM

- 19a. Give:
- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
 - (2) the details of subsequent stages of selection and multiplication;
 - (3) evidence of uniformity and stability; and
 - (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. The new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant **MAY NOT** reverse this affirmative declaration after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

CANADA: first commercial sales 2001

24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

Canada: registration number 5008, registration date 22.11.1999, PBR #1057 (Nov. 2001)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or an modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for review instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.



EXHIBIT A ORIGIN AND BREEDING HISTORY OF THE VARIETY 20.7.2004

Name of applicant : Dr. Peter Franck

Experimental Number : **Maxine** (ACS 95009) **Hard Red Winter Wheat**

Maxine is a hard red winter wheat variety bred by Dr. Peter Franck. The variety is the result of the following crosses and selections:

Pedigree : PF 99.17 x PF L448.21

PF 99.17 = experimental line based on ((Karatx7GA1912)x(F29-17xBezostaya))
x172PF

PF L448.21=experimental line based on (82-140 PF x 1718PF), both lines have never been registered

The final cross was made in 1982. F1 seed were bulked at harvest 1983; the F2 to F6 generations were grown and selected in Oberlimpurg. F7 and F8 were selected under canadian conditions (yield, winter hardiness, quality and lodging resistance). Agronomically acceptable rows were selected; 20 such rows were multiplied. Since successive generations were tested in various US-states, mainly Montana.

Stages of Selection and Multiplication :

From this 20 rows 4 lines were finally selected and bulked. MAXINE will be maintained at Oberlimpurg throughout the duration of Plant Variety Protection, based on 540 single plant progenies sown annually as „ear to row“. Negative selection is based on obvious criteria in all stages from 4-leaf-stage to harvest. Breeders seed production is generated from this material.

Uniformity and Stability Statement

Maxine has been observed for 10 generations of increase and is stable and uniform. Variants appear in Maxine at a frequency of about 40 in 10000. 20 of 10000 variants are taller (> 10cm) and 20 of 10000 variants are bald.



"Maxine (ACS 95009)"

20.7.2004

Hard Red Winter Wheat

Exhibit B Statement of Distinctness

Maxine is most similar to the variety CDC Falcon; however Maxine differs from plant height (89,5 cm vs. 86,5 cm) and ear emergence (Maxine is one day earlier than CDC Falcon). The glume shoulders of Maxine are oblique where the glume shoulders of CDC Falcon are wanting. Maxine has higher protein values than CDC Falcon (see table 1).

Table 1. Quality characteristics of Maxine compared to check variety CDC Falcon in Western Plant Breeders (Bozeman and Moses Lake) trials 2002-2003 (avg. of 2 locations)

Entry	Heading Date	Plt. Ht. (cm)	T.W. (lbs/bu)	Protein %	SED (mm)
	<u>Julian Days</u>				
CDC Falcon ML, WA 2003			63,9	13,1	108
CDC Falcon BZ, MT 2003	170	84	61,5	12,0	84
CDC Falcon BZ, MT 2002	<u>175</u>	89	<u>61,8</u>	<u>12,3</u>	<u>109</u>
AVG	172,5	86,5	62,4	12,5	100

	Heading Date	Plt. Ht. (cm)	T.W. (lbs/bu)	Protein %	SED (mm)
	<u>Julian Days</u>				
Maxine ML, WA 2003			64,3	14,7	108
Maxine BZ, MT 2003	170	86	62,1	14,5	90
Maxine BZ, MT 2002	<u>173</u>	<u>93</u>	<u>61,3</u>	<u>14,0</u>	<u>117</u>
AVG	171,5	89,5	62,6	14,4	105

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completed and reviewing the collection of information.

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**U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705**

Exhibit C

**OBJECTIVE DESCRIPTION OF VARIETY
Wheat (*Triticum* spp.)**

NAME OF APPLICANT (S) DR. PETER FRANCK	TEMPORARY OR EXPERIMENTAL DESIGNATION ACS 95009	VARIETY NAME Maxine
ADDRESS (Street and No. or RD No., City, State, Zip Code and Country) ACS-PZO Pflanzenzucht Oberlimpurg Oberlimpurg 2 D-74523 Schwabisch Hall GERMANY		FOR OFFICIAL USE ONLY PVPO NUMBER 200400241

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. 0 9 9 or 0 9) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____ Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

- 1 = Common
2 = Durum
3 = Club
4 = Other (Specify) _____

2. VERNALIZATION:

- 1 = Spring
2 = Winter
3 = Other (Specify) _____

3. COLEOPTILE ANTHOCYANIN:

- 1 = Absent 2 = Present

4. JUVENILE PLANT GROWTH:

- 1 = Prostrate 2 = Semi-Erect 3 = Erect

5. PLANT COLOR: (boot stage)

- 1 = Yellow-Green
2 = Green
3 = Blue-Green

6. FLAG LEAF: (boot stage)

- 1 = Erect 2 = Recurved
 1 = Not Twisted 2 = Twisted
 3 = Wax Absent 3 = Wax Present

7. EAR EMERGENCE: Days from January 1

<input type="text" value="1"/>	<input type="text" value="7"/>	<input type="text" value="2"/>	Number of Days (average)
<input type="text" value="0"/>	<input type="text" value="1"/>		Number of Days Earlier Than Same as
<input type="text" value=""/>	<input type="text" value=""/>		Number of Days Later Than

* CDC Falcon

*

*

*Relative to a Commercial Variety Grown in the Same Trial

8. ANTER COLOR:

- 1 = Yellow 2 = Purple

5

9. PLANT HEIGHT: (from soil to top of head, excluding awns)

0	9	0
	3	

cm (Average)

cm Taller Than

Same as

cm Shorter Than

* CDC Falcon

*

*

*Relative to a Commercial Variety Grown in the Same Trial

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10. STEM:

A. ANTHOCYANIN

1

1 = Absent

2 = Present

D. INTERNODE

2

1 = Hollow

2 = Semi-Solid

3 = Solid

Number of Nodes

B. WAXY BLOOM

2

1 = Absent

2 = Present

E. PEDUNCLE

3	
1	0

1 = Erect

2 = Recurved

3 = Semi-Erect

cm Length

C. HAIRINESS (last internode of rachis)

2

1 = Absent

2 = Present

F. AURICLE

1
2

Anthocyanin:

1 = Absent

2 = Present

Hair:

1 = Absent

2 = Present

11. HEAD: (at maturity)

A. DENSITY

3

1 = Lax

2 = Mid-dense (Laxidense)

3 = Dense

C. CURVATURE

2

1 = Erect

2 = Inclined

3 = Recurved

B. SHAPE

2

1 = Tapering

2 = Strap

3 = Clavate

4 = Other (Specify) _____

D. AWNEDNESS

4

1 = Awnless

2 = Apically Awnletted

3 = Awnletted

4 = Awned

12. GLUMES: (at maturity)

A. COLOR

1

1 = White

2 = Tan

3 = Other (Specify) _____

E. BEAK WIDTH

2

1 = Narrow

2 = Medium

3 = Wide

B. SHOULDER

2

1 = Wanting

2 = Oblique

3 = Rounded

4 = Square

5 = Elevated

6 = Apiculate

7 = Other (Specify) _____

F. GLUME LENGTH

3

1 = Short (ca. 7mm)

2 = Medium (ca. 8mm)

3 = Long (ca. 9mm)

C. SHOULDER WIDTH

1

1 = Narrow

2 = Medium

3 = Wide

G. WIDTH

2

1 = Narrow (ca. 3mm)

2 = Medium (ca. 3.5mm)

3 = Long (ca. 4mm)

D. BEAK

3

1 = Obtuse

2 = Acute

3 = Acuminate

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13. SEED

A. SHAPE

- ☐ 1 1 = Ovate
☐ 2 = Oval
☐ 3 = Elliptical

B. CHEEK

- ☐ 1 1 = Rounded
☐ 2 = Angular

C. BRUSH

- ☐ 2 1 = Narrow ☐ 1 = Not Collared
☐ 2 = Medium ☐ 2 = Collared
☐ 3 = Wide

D. CREASE

- ☐ 1 1 = Width 60% or less of Kernel
☐ 2 = Width 80% or less of Kernel
☐ 3 = Width nearly as Wide as Kernel

- ☐ 1 1 = Depth 20% or less of Kernel
☐ 2 = Depth 35% or less of Kernel
☐ 3 = Depth 50% or less of Kernel

E. COLOR

- ☐ 3 1 = White
☐ 2 = Amber
☐ 3 = Red
☐ 4 = Other (Specify) _____

F. TEXTURE

- ☐ 1 1 = Hard
☐ 2 = Soft
☐ 3 = Other (Specify) _____

G. PHENOL REACTION

- ☐ 4 1 = Ivory 4 = Dark Brown
☐ 2 = Fawn 5 = Black
☐ 3 = Light Brown

H. SEED WEIGHT

- ☐ 4 ☐ 0 g/1000 Seed (whole number only)

I. GERM SIZE

- ☐ 2 1 = Small
☐ 2 = Mid-Size
☐ 3 = Large

14. DISEASE (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

<input type="checkbox"/> 0	Stem Rust (<i>Puccinia graminis f. sp. tritici</i>)	<input type="checkbox"/> 3	Leaf Rust (<i>Puccinia recondita f. sp. tritici</i>)
<input type="checkbox"/> 3	Stripe Rust (<i>Puccinia striiformis</i>)	<input type="checkbox"/> 0	Loose Smut (<i>Ustilago tritici</i>)
<input type="checkbox"/> 0	Tan Spot (<i>Pyrenophora tritici-repentis</i>)	<input type="checkbox"/> 0	Flag Smut (<i>Urocystis agropyri</i>)
<input type="checkbox"/> 0	Halo Spot (<i>Selenophoma donacis</i>)	<input type="checkbox"/> 0	Common Bunt (<i>Tilletia tritici</i> or <i>T. Laevis</i>)
<input type="checkbox"/> 3	<i>Septoria nodorum</i> (Glume Blotch)	<input type="checkbox"/> 0	Dwarf Bunt (<i>Tilletia controversa</i>)
<input type="checkbox"/> 0	<i>Septoria avenae</i> (Speckled Leaf Disease)	<input type="checkbox"/> 0	Karnal Bunt (<i>Tilletia indica</i>)
<input type="checkbox"/> 3	<i>Septoria tritici</i> (Speckled Leaf Blotch)	<input type="checkbox"/> 3	Powdery Mildew (<i>Erysiphe graminis f. sp. tritici</i>)
<input type="checkbox"/> 3	Scab (<i>Fusarium spp.</i>)	<input type="checkbox"/> 0	"Snow Molds"
<input type="checkbox"/> 0	"Black Point" (Kernel Smudge)	<input type="checkbox"/> 0	Common Root Rot (<i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris spp.</i>)
<input type="checkbox"/> 0	Barley Yellow Dwarf Virus (BYDV)	<input type="checkbox"/> 0	Rhizoctonia Root Rot (<i>Rhizoctonia solani</i>)
<input type="checkbox"/> 0	Soilborne Mosaic Virus (SBMV)	<input type="checkbox"/> 0	Black Chaff (<i>Xanthomonas campestris pv. translucens</i>)
<input type="checkbox"/> 0	Wheat Yellow (Spindle Streak) Mosaic Virus	<input type="checkbox"/> 0	Bacterial Leaf Blight (<i>Pseudomonas syringae pv. syringae</i>)
<input type="checkbox"/> 0	Wheat Streak Mosaic Virus (WSMV)	<input type="checkbox"/>	Other (Specify) _____
<input type="checkbox"/>	Other (Specify) _____	<input type="checkbox"/>	Other (Specify) _____
<input type="checkbox"/>	Other (Specify) _____	<input type="checkbox"/>	Other (Specify) _____
<input type="checkbox"/>	Other (Specify) _____	<input type="checkbox"/>	Other (Specify) _____

15. INSECT

(0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

<input type="checkbox"/> 0	Hessian Fly (<i>Mayetiola destructor</i>)	<input type="checkbox"/>	Other (Specify) _____
<input type="checkbox"/> 0	Stem Sawfly (<i>Cephus spp.</i>)	<input type="checkbox"/>	Other (Specify) _____
<input type="checkbox"/> 0	Cereal Leaf Beetle (<i>Oulema melanopa</i>)	<input type="checkbox"/>	Other (Specify) _____

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15. INSECT (continued) (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

0
0
0

Russian Aphid (*Diuraphis noxia*)
Greenbug (*Schizaphis graminum*)
Aphids

Other (Specify)
Other (Specify)
Other (Specify)

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

Maxine Quality Data: Grain Quality Lab, Agriculture Canada, Ottawa**Kernel Characteristics**

CULTIVAR	C.G.C. Assessment		Test	Kernel	Kernel	Grain	Grain	Falling	SKCS		
	Grade	Tomb-stone	Weight	Weight	Hardness low = hard	Protein	Ash	Number	K.W.	Hardness high = hard	Class

1997

Fundulea	chk	1	0.25	81.5	30.5	64.6	11.50	1.73	264	33.94	42.75	mixed
Karat		1	0.43	82.5	35.2	53.3	12.37	1.76	312	38.14	59.36	hard
Maxine		1	0.79	82	37.2	51.7	11.86	1.68	287	43.82	55.35	hard

1998

Fundulea	chk	1	0.10	81.9	33.3	65.9	12.48	1.55	300			
Karat		1	0.13	82.5	36.6	58.2	12.90	1.61	303			
Maxine		2	0.10	80.7	39.7	59.6	12.52	1.48	238			

Two-year summary

Fundulea	chk			81.7	31.6	65.2	11.99	1.64	282			
Karat				82.5	35.9	55.8	12.64	1.68	308			
Maxine				81.4	38.4	55.6	12.19	1.58	262			

Flour Characteristics

	Flour Yield			Flour	Protein	Flour	FARINOGRAPH DATA						Loaf	Starch
	I	P	A	Protein	Differ	Ash	ABSN	PK	TM	STABIL	MTI	TMD	Volume	Damage

1997

Fundulea	chk	73.1	74.4	74.3	10.41	1.09	0.48	54.9	4.2	4.4	66	117	742	3.74
Karat		77.6	78.2	81.1	11.35	1.02	0.43	57.9	3	6.8	27	88	785	4.82
Maxine		77.6	78.2	81	10.58	1.28	0.43	57.2	3.7	7.8	24	88	780	5.10

1998

Fundulea	chk	74.1	76.5	76.5	11.18	1.29	0.45	55.7	3.3	3.3	64	146	760	3.89
Karat		77.6	78.1	82.7	11.96	0.94	0.40	57.1	4.8	6.1	38	102	820	4.89
Maxine		77.8	80	81.7	11.64	0.88	0.42	58	4.7	7.6	34	106	837	5.30

Two-year summary

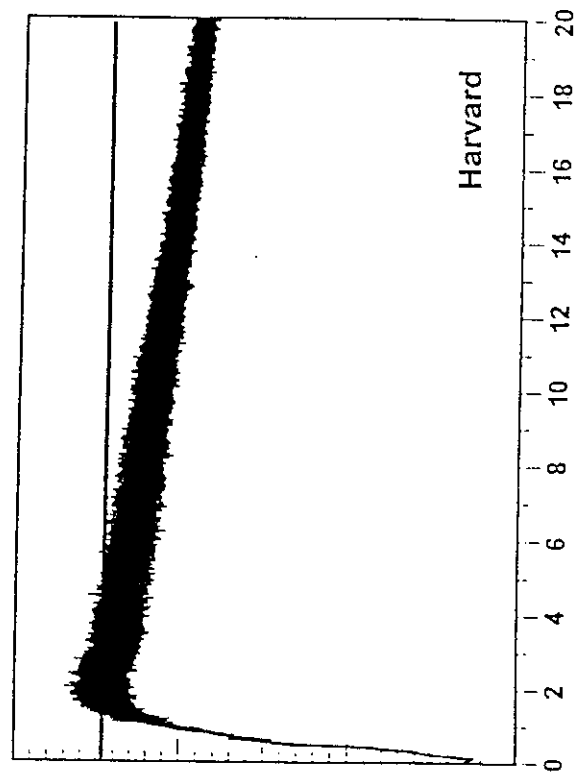
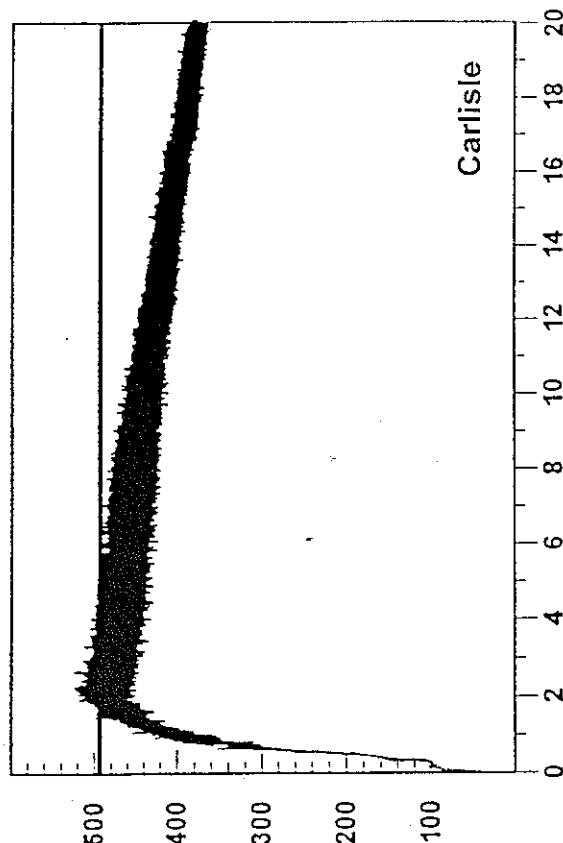
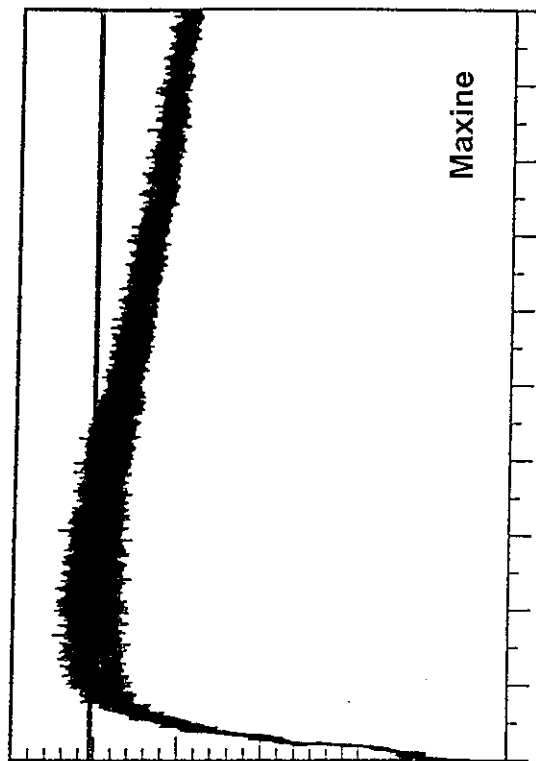
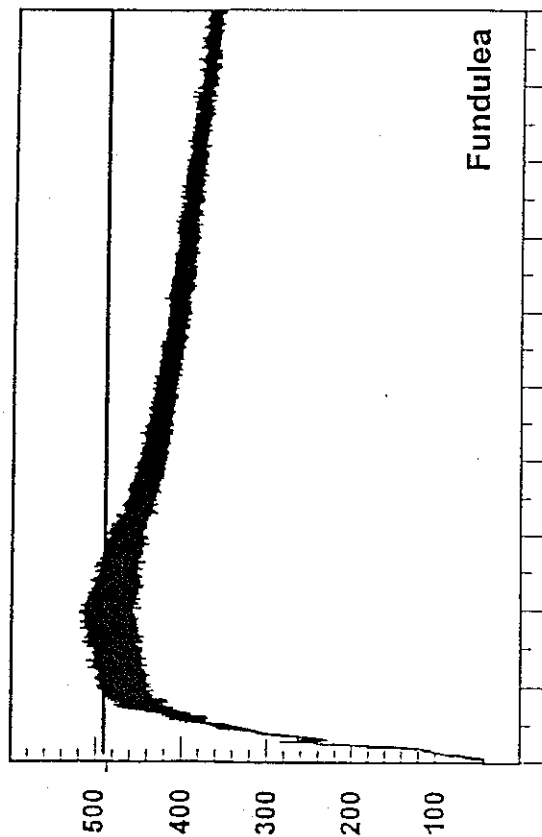
Fundulea	chk	73.6			10.80		0.46	55.3	3.8	3.8	65	132	751	3.82
Karat		77.6			11.66		0.42	57.5	3.9	6.4	32	95	802	4.86
Maxine		77.7			11.11		0.42	57.6	4.2	7.7	29	97	808	5.20

Locations: 1997 = Woodslee, Ottawa, Nairn, Chatham

1998 = Palmerston, Woodstock, Nairn, Ottawa, Harrow, Guelph, Chatham

Hard Red Winter Wheat

Ontario Hard Red Winter Wheat Registration Test
Results from Grain Quality Lab, ECORC



200400241

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE**EXHIBIT E**
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) Dr. Peter Franck	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER ACS 95009	3. VARIETY NAME Maxine
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) ACS-PZO Pflanzenzucht Oberlimpurg Oberlimpurg 2 D-74523 Schwäbisch Hall Germany	5. TELEPHONE (Include area code) ++49-791-93180	6. FAX (Include area code) ++49-791-47333
7. PVPO NUMBER 200400241		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. ☒ YES ☐ NO9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☐ YES ☒ NO
Germany10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☒ NO If no, give name of country

Germany

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☒ NO If no, give name of country

Germany

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.